

## CLAIMS

1. Process for obtaining an extract of algae, or a powder of algae titrated with active principles ensuring the fixing of calcium by osseous cells, which consists of placing in culture in a tray with wells a human or animal osseous cell line in a complete culture medium, ensuring the complete development of this culture in the presence of an extract or powder of the alga *Padina pavonica*, analysing the quantity of calcium fixed by the cells in the extracellular matrix in the presence or absence of agents antagonistic to the fixing of calcium and expressing the results either in arbitrary units, or in the quantity of Estradiol, with reference to the known activity of fixed doses of an agent favouring the fixing of calcium.
2. Process according to claim 1 in which a suspension of a human or animal cell line is placed in culture and the cell density determined by turbidimetry or by calculation based on a reference value is adjusted.
3. Process according to claim 1 or 2 in which complete culture medium (CCM), then a dispersion agent inhibiting the fixing of calcium is added to each well, a set volume of solution of extract of algae to be tested is added to the medium, and the medium is left to incubate at 37°C in an atmosphere of carbon dioxide for one to three days.
4. Process according to any one of claims 1 to 3 in which the supernatant fractions are separated from the incubated medium, the cells are rinsed with a medium devoid of calcium and magnesium, the volume is adjusted with a fixed volume of an agent capable of destroying the extracellular matrix produced by the cells, in particular a mineral acid, and the calcium fixed by the cells is dosed.
5. Process according to any one of claims 1 to 4 in which a calciotropic hormone such as, for example, estradiol is used as reference active principle.
6. Process according to any one of claims 1 to 6 in which the inhibitor of the fixing of the calcium is a pro-inflammatory agent such as interleukin IL-1.
7. Process according to any one of claims 1 to 6 in which the inhibitor of the fixing of the calcium is an agent which blocks the calcic canals such as Verapamil or Cinchonine.

8. The titrated extracts or titrated powders of the alga *Padina pavonica*, prepared according to the process of claim 1.
9. The extracts or powders of the alga *Padina pavonica* according to claim 9, titrating approximately 250  $\mu\text{g}$  of active principle and displaying a calcium fixing activity fairly comparable to that of a preparation of a calciotropic agent such as estradiol.